

Product datasheet for **MC202640**

Ythdf1 (NM_173761) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ythdf1 (NM_173761) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ythdf1
Synonyms:	2210410K23Rik; 8030473O16
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC065050 sequence for NM_173761
 GTCCCAGCCGCCGCGCCGCATTGGAGTCGGCGCCCCCTCAGCCTGTCCGCTACCTTCCGCTGCTTCCC
 GCTGTTCCGGCCCGCGTGCCTACAGTGCCTGCCCGCGCCCGGCCGACCCGCGGAGTTGGCGGGGGCAC
 GGGGCCGCGCGCGCGTACAGGCCCGGCTCGTGGGAGGCCGAGCCGCGCGCCCGGGTCCCAGCCG
 GCGCTGTTTCATGAAGCATGTCGGCCACCAGCGTGGACCCAGAGAACAAAAGGACAAGATAATAAAGTA
 CAAAATCGGTTCTTGCATCAGAAGGATGCAGTTCATGACAATGACTTTGAGCCCTACCTTTCTGGACAGT
 CCAATCCGAGTAACAGTTACCCCTCGATGAGTGATCCTTACCTGTCCAGTTACTATCCACCATCCATTGG
 ATTTCTTACTCCCTCAGCGAGGCACCATGGTCCACTGCAGGGGACCCCTCCCATCCCGTATCTCACTACC
 TATGGACAACCTTAGTAATGGAGACCATCACTTCATGCATGATGCTGTTTTTGGGAGCCTGGGGTCTGG
 GGAACAACATTTACCAGCACAGGTTAATTTTTTCCCTGAAAACCTGCATTCTCAGCATGGGGACAAG
 TGGTTCTCAGGGGACGAGACTCAGAGCTCAGCCTATGGGAGCAGTTACACTTACCCACCTAGCTCCCTT
 GGTGGCACAGTTGTTGATGGGCAGACAGGTTTTACAGTGACTCCCTCAACAAGGCCCTGGGATGAACA
 GTCTGGAGCAGGGCATGGTTGGCCTGAAGATTGGGGATGTTACCACCTCTGCAGTTAAGACGGTGGGTTT
 AGTTGTCAACAGTGTGGCACTGACTGGTGTCTTTCTGGCAATGGTGGGACAAAATGAAACATGCCAGTT
 TCAAAACCAACTTCATGGGCAGCATTGCTAGCAAGCCTGCAAAACCACAGCCTAAGATGAAAACAAGA
 GTGGGCCGATAGTTGGGGTGCCTGCTCCCTCCCTATCAAGCATAACATGGACATTGGTACTTGGGA
 TAACAAGGGCCCTGCTCAAAGGCCTCCGCCCCCAGCAGACACCATCCCCCAGGCTGCCCCACAGCCC
 CAGCAGGTAGCTCAACCTCTCCCTGTTCCAGCCCCACCTTTGGTCCAGCCACAGTATCAGAGCCCTCAGC
 AGCCACTTCAACCCCGCTGGGTGGCTCCTCGAAACAGAAATGCAGCATTGGGCAGAGTGGAGGGGCCAA
 CAGTGACAGTAACCTGTTGAAATGCCAACCTACTTCTGCCCCGAGTGTAGAATCCCACCCTGTCCTG
 GAGAACTGAAAGCTGCCACAGCTATAACCTAAAGAGTTCGACTGGAATCTTAAGAGTGGCGGGTGT
 TCATCATCAAGAGCTATTCTGAGGACGACATCCACCGCTCCATCAAGTACTCCATCTGGTGTAGTACTGA
 ACACGGCAACAAGCGCCTGGACGGCGCCTCCGCTCCATGAGCAGCAAGGGGCCGTTTTATCTCCTCTTC
 AGTGTCAATGGGAGTGGACATTTCTGTGGGTGGCAGAGATGAAGTCCCTGTGGACTACGGCACCAGCG
 CTGGGTCTGGTCTCAGGACAAGTGAAGGAAAAGTTGATGTGAAGTGGATTTTTGTGAAGGATGTGCC
 CAACAACCAGCTGCGGCACATCAGACTGGAGAATAACGACAACAACCTGTCAAAAACCTCCCGTATACA
 CAGGAGGTGCCCTTAGAAAAAGCAAAACAAGTGTGAAGATTATCGCTTCTATAAGCACACAACCTCTA
 TCTTTGACGACTTTTCTCATTATGAGAAGCGCCAGGAGGAAGAGGAGTGGTGCCTAAGGAAAGACAGAA
 TCGAAACAACAATAAGAACAAGCCAGTTGTTTTTGGTTAATGGTTGACTTTGAAAACAGAGTTTTAA
 GCTGTATGCTTGGTGTCTCCTGAGTCCAGTCCAGTGTCTCCTCGTGGGGTGGATTGTTGCATCTT
 TATCTTTGTAGTTCATTTTTGCCAGATGGATCTGCATTATTTGATTTTTCTATGTATTATAATATTGT
 AGAACTACTAATAAAGGAGTATTTGTTGTGCTAGCTTATCAGTCAAGTACCTAATGCAAAATATAAA
 TATTTCTCAAAACAAAACACCTAATACATCCAAAGATATTTTTATTTTGGCAGAAATTATGTTCTTATT
 CTTATATCTAGCCATTTAATATCCCTATAGGATACTTCATATTTCTGTCTCTCCTGCTTTACAGCAAA
 CAAAAAGCCATTTCAGCATGTGCTGTTGATGTCTTTCACAGTACTGAAGTGGCTTGGCATTTTACTATC
 TGTGGTATCCATCATATTGCTGACCTGCCCTTTGAGTTTCTACTAGACAAAATAACTTTTAGTTTTAAG
 TGTGCTCACAGCTGTCTATGGGCAAGCTGTCCATAGTTTAGTGCCACACAGAGCGGTGCTCCAGTCTC
 CTTGCCACCGTCTGCCACTGCATGAGGTTTGGGCTCTGTGGCAAGGAAGTGAAGGTTGTTAAGTCTGG
 TTCAGCTTTGCGACATTCTAGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG
 TGATGCTGTCTTAAGTTTTATACCAGTAACGCTAAGCTTTAATTGTAGGAATCTGATAGTACAGGCAGT
 GTGATGGATGCTGCTGCCGACTGTAATTTCACTGTGTGTCTATTTTTTTTTTCTGTTGAATGGGTGAAA
 AAAGCAAAAAACAAAAATCCTTTAGAAAACAAATTTGCTATCATGTTTTGTGGAATGAGGAGCCTCGG
 AGGAGCTCACCGCATCTGGAGTTGGAGTTAGCATGAAAGTGGTGTCTATGCCGACGCCCTCGCATA
 TGAATCTGCACGCGCCACTGTAGAGGATCTTACTGTCTTAGAGAGCAGATACCTTCCGAAACTATTTA
 CTCCAAAAGACCCTCTGAGTTAACATTTAAGCTGTATTATTTAGACTGTATTTAGAACGTGTCACTTCC
 TCGAGCTTACTGCCTGTACGGAGTCTGGACAACATCGGATACCTGTCTCTAGGAGAATACAAGCCT
 TAATAACACCTGTTGAGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Ascl-NotI
ACCN: NM_173761
Insert Size: 1680 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [BC065050](#), [AAH65050](#)

RefSeq Size: 3199 bp

RefSeq ORF: 1680 bp

Locus ID: 228994

UniProt ID: [P59326](#)

Cytogenetics: 2 H4

Gene Summary:

Specifically recognizes and binds N6-methyladenosine (m6A)-containing mRNAs, and promotes mRNA translation efficiency (PubMed:30401835). M6A is a modification present at internal sites of mRNAs and some non-coding RNAs and plays a role in the efficiency of mRNA splicing, processing and stability (PubMed:30401835). Acts as a regulator of mRNA translation efficiency: promotes ribosome loading to m6A-containing mRNAs and interacts with translation initiation factors eIF3 (EIF3A or EIF3B) to facilitate translation initiation (By similarity). Required to facilitate learning and memory formation in the hippocampus by enhancing protein synthesis upon neuronal stimulation: in response to neuronal stimulation, binds to m6A-containing neuronal mRNAs, promoting their translation, thereby contributing to learning and memory (PubMed:30401835). Acts as a regulator of axon guidance by binding to m6A-containing ROBO3 transcripts, thereby promoting their translation (PubMed:30843071). Acts as a negative regulator of antigen cross-presentation in myeloid dendritic cells (PubMed:30728504). Acts by binding and promoting translation of m6A-containing transcripts encoding proteins involved in lysosomal degradation and phagosome maturation, leading to increased antigen degradation in myeloid dendritic cells (PubMed:30728504). In the context of tumorigenesis, negative regulation of antigen cross-presentation limits the anti-tumor response by reducing efficiency of tumor-antigen cross-presentation (PubMed:30728504).[UniProtKB/Swiss-Prot Function]